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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,515	05/02/2005	Gerald Eckert	DE02 0245 US	4545
65913	7590	02/19/2008	EXAMINER	
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			PATEL, NIRAV B	
			ART UNIT	PAPER NUMBER
			2135	
			NOTIFICATION DATE	DELIVERY MODE
			02/19/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

## Office Action Summary

Application No.

10/533,515

Applicant(s)

ECKERT ET AL.

Examiner

NIRAV PATEL

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8-15 is/are pending in the application.
- 4a) Of the above claim(s) 11-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1,3,4,8,10,14 and 15 is/are rejected.
- 7) ☐ Claim(s) 5,9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action in responsive to the communication filed on Nov. 30, 2007.
2. Claims 1, 3-6, 8-15 are pending.
3. Applicant's election without traverse of the elected Species I, claims 1, 3-6, 8-10, 14, 15, in the reply filed on 11/30/07 is acknowledged. Claims 11-13 are drawn to nonelected species, thus withdrawn from further consideration.

### **Claim Rejections - 35 USC § 101**

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1, 3-4, 8, 10, 14, 15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1 recites, "A method of detecting point correspondences between a first set of points and a second set of points, comprising the following steps: finding of possible matching pairs comprising a point from the first set of points and a point from the second set of points, and finding a maximum number of matching pairs, wherein the finding of a maximum number of matching pairs comprises the following steps: combining of two matching pairs at a time into a tuple to form a plurality of tuples, determining an affine map for each tuple, that maps the two points in each matching

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pair of the tuple onto one another, sorting of the plurality of tuples into a tuple list, creating a search tree on the basis of the tuple list, and deriving a matching result from the search tree". Claim 1 is directed to mathematical algorithm and/or computation, which performs solely mathematical calculation i.e. an abstract idea, without a practical application that produces a useful, concrete and tangible result. The abstract idea is expressed as finding of possible matching pairs, finding a maximum number of matching pairs, combining of two matching pairs, determining an affine map for each tuple, sorting of the plurality of tuples, creating a search tree on the basis of the tuple list, deriving a matching result from the search tree. This claim preempts all substantive practical applications of the mathematical calculations performed as recited and would, in practical effect, result in a patent on the abstract idea itself. Therefore, there is no real world or tangible result provided to satisfy the practical application requirement of 35 USC 101.

Claims 3, 4, 14, 15 depend on claim 1, therefore they are rejected with the same rationale applied against claim 1 above.

Claim 8 has limitation that are similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

Claim 10 has limitation that are similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above. Further, Claim 10 is computer program

claimed as computer listings "per se" that is, the descriptions or expression of programs, are not physical "things". They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. Therefore, claim 10 recites non-statutory subject matter.

### **Response to Argument**

5. Applicant's arguments filed July 31, 2007 have been fully considered but they are not persuasive.

Regarding to the Applicant's argument to the 35 USC § 101 rejection, Examiner disagrees with applicant and still maintains that claims 1, 3-4, 8, 10, 14, 15 recite non-statutory matter. Applicant's argument on page 8 that "the claimed invention is useful because the matching result enables applications such as fingerprint verification", is not stated expressively in the independent claims 1, 6, 10. Due to lack of such tangible result in the claim limitation, Examiner maintains the 35 USC § 101 rejection. See 35 U.S.C. 101 rejection above.

### **Allowable Subject Matter**

6. Claims 1, 3-4, 8-10, 14, 15 are allowable if rewritten to overcome the 35 USC 101 issue.

### Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIRAV PATEL whose telephone number is (571)272-5936. The examiner can normally be reached on 8 am - 4:30 pm (M-F).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*NBP*

2/11/08

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2/12/08